What is Claimed is:

1. A method of processing a substrate, comprising:

depositing a silicon carbide barrier layer adjacent the substrate, wherein the silicon carbide barrier layer is deposited by:

introducing silicon, carbon, and a noble gas into a chamber;

initiating a plasma in the chamber; and

reacting the silicon and the carbon in the presence of the plasma to deposit silicon carbide material;

depositing a dielectric layer adjacent the silicon carbide barrier layer;

depositing an etch stop adjacent the dielectric layer, wherein the etch stop comprises silicon carbide deposited by:

introducing silicon, carbon, and a noble gas into a chamber;

initiating a plasma in the chamber; and

reacting the silicon and the carbon in the presence of the plasma to deposit silicon carbide material, wherein the silicon carbide etch stop has a dielectric constant of less than about 5 and has a reflectivity of about 7 percent or less at ultraviolet wavelengths; and

depositing a photoresist layer adjacent the etch stop.

2. The method of claim 1, wherein the silicon and carbon are provided by introducing a silane-based compound having at least one carbon atom attached.

3. The method of claim 2, wherein the silicon and carbon are provided by introducing trimethylsilane or methylsilane into the chamber.

4. The method of claim 1, wherein the etch stop has a thickness from about 5000 Å to about 10000 Å.

5. The method of claim 1, wherein the etch stop layer has an absorption index between about 0.2 and about 1.

6. The method of claim 1, wherein the etch stop layer has an absorption index between about 0.4 and about 0.7 and an index of refraction between about 2.1 and about 2.6.

7. The method of claim 1, wherein the etch stop layer has an etch selectivity ratio of about 20:1 or greater to the dielectric layer.

8. The method of claim 1, wherein the etch stop layer is deposited in situ with the dielectric layer.

9. The method of claim 1, further comprising adjusting thicknesses of the first dielectric layer and the etch stop between the first and second dielectric layer for a projected reflectivity.

10. A method of processing a substrate, comprising:

depositing a silicon carbide barrier layer adjacent the substrate, wherein the silicon carbide barrier layer is deposited by:

introducing silicon, carbon, and a noble gas into a chamber;

initiating a plasma in the chamber; and

reacting the silicon and the carbon in the presence of the plasma to deposit silicon carbide material;

depositing a first dielectric layer on the silicon carbide barrier layer;

depositing a silicon carbide etch stop on the first dielectric layer, wherein the etch stop is deposited by:

introducing silicon, carbon, and a noble gas into a chamber;

initiating a plasma in the chamber; and

reacting the silicon and the carbon in the presence of the plasma to deposit silicon carbide material;

depositing a second dielectric layer on the etch stop;

depositing an anti-reflective coating on the second dielectric layer, wherein the anti-reflective coating comprises silicon carbide and has a dielectric constant of less than about 5 and has a reflectivity of about 7 percent or less at ultraviolet wavelengths; and

depositing a photoresist layer on the anti-reflective coating.

11. The method of claim 10, wherein the silicon carbide barrier layer and the silicon carbide etch stop are deposited by introducing trimethylsilane and a noble gas into a chamber and reacting the trimethylsilane in the presence of a plasma.

12. The method of claim 10, wherein the anti-reflective coating comprises silicon carbide deposited by introducing trimethylsilane and a noble gas into a chamber and reacting the trimethylsilane in the presence of the plasma to deposit silicon carbide material, wherein the silicon carbide material is anti-reflective at ultraviolet wavelengths.

13. The method of claim 10, further comprising adjusting thicknesses of the first dielectric layer and the etch stop between the first and second dielectric layer for a projected reflectivity.

14. The method of claim 10, further comprising adjusting thicknesses of the second dielectric layer and the silicon carbide anti-reflective coating for a projected reflectivity.

15. The method of claim 10, wherein the reflectivity is substantially independent of a layer thickness of a dielectric layer adjacent the anti-reflective coating.

16. The method of claim 10, wherein the silicon carbide barrier layer, the etch stop and the anti-reflective coating each have a dielectric constant of less than about 7.

17. The method of claim 10, wherein the anti-reflective coating has an absorption index between about 0.2 and about 1.

18. The method of claim 10, wherein the anti-reflective coating has an absorption index between about 0.4 and about 0.7 and an index of refraction between about 2.1 and about 2.6.

19. A method of processing a substrate, comprising:

depositing a silicon carbide barrier layer comprising an anti-reflective coating, the silicon carbide barrier layer being adjacent the substrate, wherein the silicon carbide barrier layer is deposited by:

introducing silicon, carbon, and a noble gas into a chamber;

initiating a plasma in the chamber; and

reacting the silicon and the carbon in the presence of the plasma to deposit silicon carbide material, wherein the silicon carbide barrier layer has a low dielectric constant and is anti-reflective at ultraviolet wavelengths;

depositing a dielectric layer adjacent the silicon carbide barrier layer;

depositing an etch stop adjacent the dielectric layer, wherein the etch stop comprises silicon carbide deposited by:

introducing silicon, carbon, and a noble gas into a chamber;

initiating a plasma in the chamber; and

reacting the silicon and the carbon in the presence of the plasma to deposit silicon carbide material, wherein the silicon carbide etch stop has a dielectric constant of less than about 5 and has a reflectivity of about 7 percent or less at ultraviolet wavelengths;

depositing a second dielectric layer on the etch stop; and

depositing a photoresist layer adjacent the second dielectric layer.

20. The method of claim 19, wherein the silicon and carbon are provided by introducing a silane-based compound having at least one carbon atom attached.

21. The method of claim 20, wherein the silicon and carbon are provided by introducing trimethylsilane or methylsilane into the chamber.

22. The method of claim 20, wherein the etch stop has a thickness from about 5000 Å to about 10000 Å.

23. The method of claim 19, wherein the etch stop layer has an absorption index between about 0.2 and about 1.

24. The method of claim 19, wherein the etch stop layer has an absorption index between about 0.4 and about 0.7 and an index of refraction between about 2.1 and about 2.6.

25. The method of claim 19, wherein the etch stop layer has an etch selectivity ratio of about 20:1 or greater to the dielectric layer.

26. The method of claim 19, wherein the etch stop layer is deposited in situ with the dielectric layer.

27. The method of claim 19, further comprising adjusting thicknesses of the first dielectric layer and the etch stop between the first and second dielectric layer for a projected reflectivity.

28. The method of claim 19, wherein the silicon carbide barrier layer inhibits copper diffusion from a copper interface by about 3 orders of magnitude within about 300 Å or less from an interface.

29. A method of processing a substrate, comprising:

depositing a silicon carbide barrier layer adjacent the substrate, wherein the silicon carbide barrier layer is deposited by:

introducing silicon, carbon, and a noble gas into a chamber;

initiating a plasma in the chamber; and

reacting the silicon and the carbon in the presence of the plasma to deposit silicon carbide material;

depositing a dielectric layer adjacent the silicon carbide barrier layer;

depositing an etch stop adjacent the dielectric layer, wherein the etch stop comprises silicon carbide deposited by:

introducing silicon, carbon, and a noble gas into a chamber;

initiating a plasma in the chamber; and

reacting the silicon and the carbon in the presence of the plasma to deposit silicon carbide material, wherein the silicon carbide etch stop is substantially independent of a layer thickness of the dielectric layer 5 and has a reflectivity of about 7 percent or less at ultraviolet wavelengths; and

depositing a photoresist layer adjacent the etch stop.